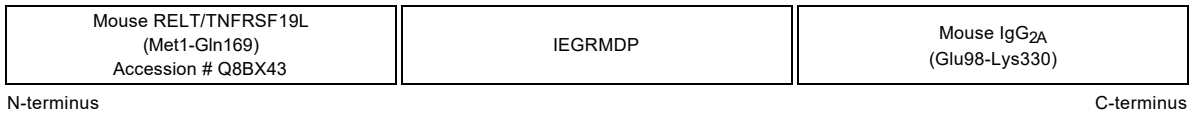
Recombinant Mouse RELT/TNFRSF19L Fc Chimera

Catalog Number: 7465-RT

DESCRIPTION

Source

Mouse myeloma cell line, NS0-derived mouse RELT/TNFRSF19L protein



N-terminal Sequence Analysis	Thr32
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	41.6 kDa (monomer)

SPECIFICATIONS

SDS-PAGE	40-55 kDa, reducing conditions
Activity	Measured by its ability to induce cell death using Mv1Lu mink lung epithelial cells. The ED_{50} for this effect is 0.3-1.5 µg/mL.
Endotoxin Level	<0.01 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

RELT (Receptor Expressed in Lymphoid Tissues) is a 46 kDa (predicted) type I transmembrane glycoprotein belonging to the tumor necrosis factor receptor superfamily and designated TNFRSF19-like (TNFRSF19L) (1, 2). It is primarily expressed in hematopoietic tissues and peripheral blood leukocytes (2, 3). Mouse RELT cDNA encodes 436 amino acids (aa), including a 31 aa signal peptide, a 138 aa extracellular domain (ECD) containing a TNF receptor cysteine-rich domain and a potential N-linked glycosylation site, a 21 aa transmembrane domain, and a 246 aa cytoplasmic region that lacks a death domain (2). Within the ECD, mouse RELT shares 78%, 89%, 70%, 70% and 67% aa sequence homology with human, rat, canine, porcine and bovine RELT, respectively. Among TNFRSF members, the RELT extracellular domain is most closely related to that of TROY/TNFRSF19 and OX40 (2). Neither human nor mouse RELT bind any of the ~19 TNF superfamily ligands that have been tested (1). Two related transmembrane proteins, RELL1 and RELL2, have been identified in both human and mouse (3). RELL1 and 2 are coexpressed with and can interact with RELT, and are thought to modulate its signaling (3-5). Intracellularly, RELT has been shown to bind the adaptor protein TRAF-1 and activate the NF-κB pathway, the phospholipid scramblase PLSCR1, and the oxidative stress responsive protein OSR1 (2-5). Another investigator notes association and signaling through SPAK, but not TRAF or NFκB (6). When overexpressed in HEK-293 cells, RELT induces p38 and JNK signaling and activates apoptosis (4-6).

References:

1. Bossen C. *et al.* (2006) J. Biol. Chem. **281**:13964.
2. Sica, G. *et al.* (2001) Blood **97**:2702.
3. Cusick, J.K. *et al.* (2006) Biochem. Biophys. Res. Commun. **340**:535.
4. Cusick, J.K. *et al.* (2010) Cell. Immunol. **261**:1.
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6. Polek T.C. *et al.* (2006) Biochem. Biophys. Res. Commun. **343**:125.

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